Octopus Technique to Treat Urgent or Ruptured TAAAs with Off the Shelf Devices

Octopus Procedure
- Multiple main body grafts to create branches to SMA/celiac/renal
- Parallel graft configuration at top

Early Observations
- Nonoperative candidates only
- Urgent cases
- Create own branches for SMA/celiac
  - Consider embolizing celiac
- Use of multiple main body grafts
- Choice of Viabahn vs VBX

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Results

• 21 patients treated with Octopus strategy: 2015-2018
• Avg age: 72.8 years (range 55-85)
• 48% female

<table>
<thead>
<tr>
<th>Comorbidities</th>
<th>%</th>
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<tbody>
<tr>
<td>CAD</td>
<td>30%</td>
</tr>
<tr>
<td>CHF</td>
<td>20%</td>
</tr>
<tr>
<td>COPD</td>
<td>35%</td>
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<tr>
<td>HTN</td>
<td>100%</td>
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<tr>
<td>Liver failure</td>
<td>3%</td>
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<tr>
<td>CRF</td>
<td>40%</td>
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<tr>
<td>ESRD on HD</td>
<td>5%</td>
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</tbody>
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Conclusions

• Octopus endovascular strategy is feasible OTS solution
  – For high risk patients that cannot undergo open repair
  – Await clinical trial devices for purpose specific TAAA grafts
• In hospital morbidity is high
  – Mortality (4%) and 1 year survival (71%) is acceptable
  – Paraplegia still an issue in endovascular TAAA strategies (staging patients still has potential risk)
• Branch patency in short-term similar to purpose-specific grafts as well as parallel graft data